APPENDIX IV.

[Vide answer to question No. 199 asked by Khan Bahadur Yahya Ali Sahib Bahadur at the meeting of the Legislative Council held on the 31st October 1933, page 167 supra.]

Copy of letter from the Chief Engineer for Irrigation, No. 1841/31-*C*-26, *dated the* 27*th July* 1933.

[*Subject.*—Irrigation—Nellore district—Nellore and Sangam deltas—Supply to Pennar from the Kurnool-Cuddapah canal.]

I forward herewith a statement showing the supplies that would normally be available from the Kurnool-Cuddapah canal to each of the two irrigation systems on the Pennar in Nellore district. These discharges will help considerably in advancing the date of cultivation and affording special facilities for raising seedlings under the Kanigiri reservoir. As regards the Survepalli reservoir, it will facilitate the early realization of the extensions proposed in another connexion, the extra supply available in a normal year being as much as one-sixth of the present capacity at the F.T.L. It will also be helpful in advancing the cultivation under the numerous tanks in the canal system under the Nellore anicut.

2. The Superintending Engineer, Madras Circle, has been asked to take in as much supply as the Kurnool-Cuddapah canal can take safely and to concentrate all the discharges not required to meet irrigation requirements in the canal itself into the Pennar valley, by surplusing it into the Kundu at Lockinsula, the Kundu falling in its turn into the Pennar. It is also proposed that the Kurnool-Cuddapah canal might be opened on 1st June, instead of on the 15th June as hitherto, and gradually be allowed to fill up within ten or fifteen days after reopening. Full supplies will be allowed to flow down it thereafter and surplused into the Kundu river to the extent it is not required for the canal ayacut. The above arrangement is being tried as an experiment this year.

I.—Statement showing the availability of supply from the Kurnool-Cuddapah Canal for the Pennar at Sangam and Nellore anicuts.

Year.	Date of arrival of first freshes in the Thungabhadra at Senekesala.	Date of opening of the Kurnool-Cuddapah canal.	Date on which supply will reach Lockinsula and full supply will obtain i.e. [column (2) + 15 days] or 16th June whichever is later.	Surplus available at Lockinsula.	Loss due to evaporation from the supply in column (5) before water reaches Sangam—vide calculation attached.	Balance supply available.	Loss due to absorption during transmission from Lockinsula to Sangam.	Number of days supply required for the absorption in column (8) [column (8)/column (7)].	Date on which supply will reach Sangam [column (4) plus column (9)].	Net available supply from the Kurnool-Cuddapah Canal that will reach Sangam between the date in column (10) and 15th August: Number of days between the date in column (10) and the 15th August.	Net available supply …: Rate of supply after allowing for evaporation.	Net available supply …: Total available supply from the Kurnool-Cuddapah Canal for the days in column (11).	Distribution of the net available supply from the Kurnool-Cuddapah canal for: Kanigiri reservoir—Capacity at F.T.L. 6,419 million cubit feet ayacut:—84,130 acres or 84,000 acres, 49·70 per cent.	Duvvur tank—Capacity at F.T.L. 779 million cubic feet ayacut:—5,280 acres or 5,000 (2·96 per cent).	Nellore tank—Capacity at F.T.L. 826 million cubic feet ayacut:—12,000 acres, 7·10 per cent.	Nellore anicut: 1. Jaffer Sahib canal, (2) Krishnapatam canal ayacut (1) 36,000 acres, 28,000 acres, total, 44,000 acres, 26·04 per cent.	Nellore anicut: Sarvapalli reservoir—Capacity at F.T.L. 1,339 million cubic feet ayacut:—24,000 acres, 14·20 per cent.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1929	16th May 1929.	1st June.	16th June 1929.	600 cusecs or 51·84 million cubic feet per day during June. 596 cusecs or 51·49 million cubic feet per day during July. 509 cusecs or 43·98 million cubic feet per day during August.	35·5 cusecs or 3·07 million cubic feet per day until water reaches Sangam in June or July.	564·5 cusecs or 48·77 million cubic feet per day during June and July.	661 million cubic feet.	13·55 or 14 days.	29th June 1929.	47	529 cusecs or 45·71 million cubic feet per day in June, i.e. (600 cusecs or 51·84 million cubic feet — 71 or 6·13 million cubic feet). 525 cusecs or 45·36 million cubic feet per day in July, i.e. (596 cusecs or 51·49 million cubic feet — 71 or 49·71 million cubic feet or 6·13 million cubic feet). 438 cusecs or 37·85 million cubic feet per day in August, i.e. (509 cusecs or 43·98 million cubic feet—71 or 6·13 million cubic feet).	2,041·3	1,014·6	60·4	144·9	531·5	289·9
1928	16th May 1928.		16th June 1928.						29th June 1928.	47		2,041·3	1,014·6	60·4	144·9	531·5	289·9
1927	4th June 1927.		19th June 1927.						2nd July 1927.	44		1,904·4	946·6	56·3	135·2	495·8	270·5
1926	4th June 1926.		19th June 1926.						2nd July 1926.	44		1,904·4	946·6	56·3	135·2	495·8	270·5
1925	16th June 1925.		1st July 1925.						14th July 1925.	32		1,355·7	673·8	40·1	96·3	353·0	192·5
1924	29th May 1924.		16th June 1924.						29th June 1924.	47		2,041·3	1,014·6	60·4	144·9	531·5	289·9
1923	30th May 1923.		16th June 1923.						29th June 1923.	47		2,041·3	1,014·6	60·4	144·9	531·5	289·9
1922	19th May 1922.		16th June 1922.						29th June 1922.	47		2,041·3	1,014·6	60·4	144·9	531·5	289·9
1921	5th June 1921.		20th June 1921.						3rd July 1921.	43		1,858·4	923·7	5·0	132·0	483·9	263·9
1920	18th June 1920.		3rd July 1920.						16th July 1920.	30		1,265·0	628·7	37·4	89·8	329·3	179·6

II.—Statement showing the improvement in the supply to the Kanigiri Reservoir by the surplus from the Kurnool-Cuddapah Canal.

Year.	Date on which Kurnool-Cuddapah Canal surplus will reach Sangam—vide column (10) of Statement I.	Total surplus from the Kurnool-Cuddapah Canal available for the Kanigiri Reservoir between the date in column (2) and the 15th August—vide column 14 of Statement I.	Dates of freshes in the Pennar at Sangam.	Capacity of the Kanigiri Reservoir (capacity at F.T.L. = 6,419 million cubic feet). On the dates in column (2).	On the 15th August. As per existing conditions.	On the 15th August. As per proposed conditions column (6) + column (3).	On the date of arrival of continuous freshes in the Pennar at Sangam (if later than the 15th August).
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		M.C.FT.		M.C.FT.	M.C.FT.	M.C.FT.	M.C.FT.
1929 ..	29th June 1929 ..	1,014·6	From 16th September 1929 continuous.	1,929·0	514·4	1,529·0	1,800·4 (16th Sep. 1929).
1928 ..	29th June 1928 ..	1,014·6	From 28th June 1928 to 2nd July 1928 (5 days), from 8th July 1928 to 21st July 1928 (14 days), from 21st August 1928 to 30th August 1928 (10 days), and 14th September 1928 continuous.	1,954·7	4,913·8	5,928·4	1,749·0 (14th Sep. 1928).
1927 ..	2nd July 1927 ..	946·6	From 11th July 1927 to 28th June 1927 (18 days), from 5th July 1927 to 7th July 1927 (3 days), from 18th July 1927 to 28th July 1927 (11 days), from 4th August 1927 to 11th August 1927 (8 days), 1st September 1927 to 2nd September 1927 (2 days), and 19th September 1927 to continuous.	Surplusing.	Surplusing.	Surplusing.	1,903·3 (19th Sep. 1927).
1926 .	2nd July 1927 ..	946·6	From 9th June 1926 to 13th June 1926, (5 days), from 29th June 1926 to 6th July 1926 (8 days), from 26th July 1926 to 28th July 1926 (3 days), from 27th August 1926 to 31st August 1926 (5 days), and 6th September 1926 continuous.	4,769·5	4,817·6	5,764·2	3,278·7 (6th Sep. 1926).

II.—Statement showing the improvement in the supply to the Kanigiri Reservoir by the surplus from the Kurnool-Cuddapah Canal—*cont.*

Year.	Date on which Kurnool-Cuddapah Canal surplus will reach Sangam—*vide* column (10) of Statement I.	Total surplus from the Kurnool-Cuddapah Canal available for the Kanigiri Reservoir between the date in column (2) and the 15th August—*vide* column 14 of Statement I.	Dates of freshes in the Pennar at Sangam.	Capacity of the Kanigiri Reservoir (capacity at F.T.L. = 6,419 million cubic feet). On the dates in column (2).	On the 15th August. As per existing conditions.	On the 15th August. As per proposed conditions column (6) + column (3).	On the date of arrival of continuous freshes in the Pennar at Sangam (if later than the 15th August).
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1925 ..	14th July 1925 ..	673·8	From 9th May 1925 to 13th May 1925 (5 days), from 22nd July 1925 to 28th July 1925 (7 days), from 1st August 1925 to 25th August 1925 (25 days), from 31st August 1925 to 3rd September 1925 (4 days), and 22nd September 1925 continuous.	1,954·7	Surplusing.	Surplusing.	5,538·9 (22nd Sep. 1925).
1924 ..	29th June 1924 ..	1,014·6	From 2nd July 1924 to 12th July 1924 (11 days), from 20th July 1924 to 28th July 1924 (9 days), from 21st August 1924 to 24th August 1924 (4 days), and 29th August 1924 continuous.	Nil.	3,350·9	4,365·5	3,230·6 (29th Aug. 1924).
1923 ..	29th June 1923 ..	1,014·6	From 21st June 1923 to 25th June 1923 (5 dys), from 14th July 1923 to 30th July 1923 (17 days), and 5th September 1923 continuous.	1,723·2	2,749·7	3,764·3	1,941·9 (5th Sep. 1923).
1922 ..	29th June 1922 ..	1,014·6	From 5th June 1922 to 6th June 1922 (2 days), from 20th June 1922 to 25th June 1922 (6 days), from 20th July 1922 to 6th August 1922 (18 days), and 19th August 1922 continuous.	2,316·9	2,725·6	3,740·2	2,581·4 (19th Aug. 1922).
1921 ..	3rd July 1921 ..	923·7	From 10th June 1921 to 20th June 1921 (11 days) and 14th July 1921 continuous.	2,268·8	5,923·7	Surplusing.	....
1920 ..	16th July 1920 ..	628·7	From 21st August 1920 continuous.	1,568·9	1,388·9	2,017·6	925·9 (21st Aug. 1920).